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Suid-Afrikaanse Professionele Instituut vir Kinderkinetika  
NPC Reg nr: 2015/047186/08



SAPIX

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## ***KINDERKINETICS SCOPE OF PRACTICE***

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# **SECTION 1: INTRODUCTION TO KINDERKINETICS SCOPE OF PRACTICE**

\*The purpose of this document is to further explain the scope of practice of a Kinderkineticist, which was previously only demonstrated by means of Figure 1.

## **History towards the development of Kinderkinetics**

*The development of Kinderkinetics began officially in 1994 within Human Movement Science at the North-West University (then the Potchefstroom University for Christian Higher Education (PU for CHE)). Kinderkinetics is a profession that uses scientifically-based and individualised exercise programmes to guide the development of the psycho-motor, physical and neuro-motor development of children of various ages. There are various influences, including people and occurrences within this environment, which form an integral part of the development of this discipline and these influences stretch far back to long before 1994.*

*In the memorial album that celebrated the 50<sup>th</sup> anniversary (1957–1994) of the Department of Human Movement Science at the North-West University, Prof. Wynand Putter, former head of the Department (1974–1985), wrote that there is a golden thread woven throughout the growth of this Department, namely the continuous and single-minded pursuit with the insight at hand to continue to build and maintain Physical Education as a science in its own right (Malan & Coetzee, 1994). He further emphasised that the cultivation of the science based on the Light of the Word is unique to this Department. He also refers to the quality of personnel, the unanimity amongst them and the exceptional contribution from this Department to the scientific development of this field in the Republic of South Africa. Prof. Gert Strydom (then head of the Department) also writes as part of the introduction that his predecessors (Prof. D.P.J. Smith, Prof. W.J. Putter and Prof. T.S.P. van der Walt) were people who considered their jobs to be a calling and who led the Department with perceptiveness and vision. Prof. Strydom led the way with his own pioneering research into the use of exercise in cardiac rehabilitation, and Biokinetics as a profession emerged from this. After him, Prof. Dawie Malan marked the field of Sport Science and expanded this field to where this vision resulted in the birth of the Institute for Sport Science and Development in January 1996, with Sport Science currently one of the most important strategic role players in the vision of the North-West University.*

*The critical predisposition of the North-West University over the years also played a pivotal role in the development of Human Movement Science at this University. Malan and Strydom (2007) describe the period surrounding 1993 as a ‘time of crisis’ for the field of Human Movement Science when the University restructured, which resulted in subjects being phased out and joined together and departments closed. Human Movement Science survived this process but the message was clear: it was an expensive Department that would have to produce in order to justify and ensure its existence, and that in order to survive academically and financially, innovative and creative thought had to take place. These recommendations were not seen negatively, but rather as a challenge and played a significant role in the development of Kinderkinetics as a new possible profession.*

*During this same period, the future of the subject Physical Education at school level became uncertain in 1993 and was finally removed from the school curriculum as part of the learning plan of South African schools in 1997 (South Africa, Department of Education, 1997). The result was a low point in the enrolment of students due to the fact that the future of the profession became uncertain. The completion of a doctoral study by Pienaar (1994) with the title “The incidence and treatment of gross motor deficiencies in 6–9-year-old children in the junior primary phase” during this time was the driving force behind the development of a new entrepreneurial vocational opportunity. This research indicated marked percentages of children with motor difficulties, and that such problems had a negative impact on the total development of these children. It also provided evidence that professional guidance by means of motor intervention programmes can improve such problems to a great extent. During this unstable time, children’s need for movement did not diminish but rather increased (Pienaar, 2004; Pienaar et al., 2007a), while there were also prospective students who still wanted to study the needs of these children from a movement perspective.*

*A part-time Honours programme (originally known as Movement Science) was therefore developed from 1995 and instituted with two registered students in the first year. The programme’s popularity grew each year, however, due to capacity problems and for quality purposes, but also because there was no established market yet, for many years only eight students were selected for training in the full-time honours programme. In 2001 the name of the programme was changed to Kinderkinetics, and since 2007 the University has the capacity to train 12 to 14 students within this full-time honours programme. Currently, this programme is now the second largest postgraduate training programme, after Biokinetics in the School of Biokinetics, Recreation and Sport Science (Now Human Movement Science, since 2018). The University of the Free State began training*

*Kinderkineticists in 1998 and since then the University of Stellenbosch and the Tygerberg College (now Centurion Academy with campuses in Pretoria, Klerksdorp, Tygerberg and Cape Town) have followed.*

*Prof. Gert Strydom, then Department head and Dr Anita Pienaar, programme leader for Kinderkinetics, subsequently decided due to the development and possibilities of this new profession to follow the same route as Biokinetics and applied for registration of Kinderkinetics with the Health Professions Council of South Africa (HPCSA), and a memorandum with such an application was submitted to the HPCSA on 28 June 2000. Although there was support for the initiative from various universities, it was also unfortunately met with a letter of resistance which was distributed to all departments at universities that trained Human Movement Scientists as well as to the Health Professions Council, which stated that the proposed new profession would be detrimental to the training of Physical Education teachers and as a result should not be supported. The application was rejected with the main reason being that at least four institutions must offer this training for any application to be positively considered. Although this outcome was disappointing, it was not regarded as a damper but rather as a directional indicator for the further development and course of the opportunities within this profession.*

*Meanwhile, the South African market has given clear indications that the university can lose this market and training advantage if drastic far-sighted action is not taken. Much discussion surrounding this matter led to the conclusion that this profession was unique to the NWU with certain intellectual copyright and that the registration of a trademark should be considered. This thought process was discussed by Prof. Strydom and Dr Pienaar with Mr Frans Kruger, the legal advisor of the NWU, who submitted an application for a registered trademark on 2 April 2002. The name KINDERKINETIKA / KINDERKINETICS was then granted to the NWU as a trademark on 18 July 2006, retroactive for a period of 10 years from 2 April 2002 when the application was submitted. Thereafter, various follow-up actions were performed to support the profession of Kinderkinetics. One important step was the establishment of a professional professions board and, after much deliberation, the opinion was formulated that a professional registration with a professional institute was the way to go. The School of Biokinetics, Recreation and Sport Science (BRS) therefore applied on 6 October 2002 at the NWU for the establishment of the South African Professional Institute for Kinderkinetics® (SAPIK) within the focus area of Health Sciences of the NWU. After much discussion and deliberation with various parties (inter alia the Legal advisor, Registrar, Vice-Rector, Research Director, Prof. Dawie Malan and Prof. Pienaar), the School was advised to establish the planned Institute independent of the NWU, mainly because the training in*

*Kinderkinetics does not only take place at the NWU, and as a result the university could curtail academic freedom which should be avoided. The School of BRS was however accepted as the address of the South African Professional Institute for Kinderkinetics (SAPIK) from where it could be managed and the trademark could be protected. An establishment assembly was held on 18 November 2004 at 13:00 in Rustenburg where the South African Professional Institute for Kinderkinetics was officially established with Prof. Anita Pienaar elected as the first Director of SAPIK. In 2009 there were four tertiary training institutions, 48 registered Kinderkinetics practices and 151 registered Kinderkineticists registered with SAPIK ([www.kinderkinetics.co.za](http://www.kinderkinetics.co.za)), which has since increased to 69 registered Kinderkinetics practices and 180 registered Kinderkineticists. The public has access to parts of the website where they can obtain information concerning registered Kinderkineticists as well as existing practices, while registered Kinderkineticists can obtain information concerning the profession on the restricted part of the site.*

*(Taken from “Kinderkinetics: An investment in the total well-being of children”, by Anita E. PIENAAR, 2009)*

## **What is Kinderkinetics?**

Kinderkinetics is a profession that focuses on scientifically-based gross motor development of children from birth to 13 years of age. The practice of Kinderkinetics includes optimisation of motor skill development, health improvement and remedial interventions.

Kinderkinetics involves the development of the child in total. The main focus of the Kinderkinetic profession is on the gross motor development of children. Typically, developing children are stimulated to enhance and increase their motor development skills. Correction and improvement of the physical development of babies, toddlers and young children prove to be beneficial for their health as well as their total wellbeing. Furthermore, Kinderkineticists also presents a remediation programme of a preventive nature and will be presented as an advancement to suit the developmental and physical needs of a child as determined through scientifically-based evaluations.

On the basis of evaluation, specific interventions are identified to reach outcomes set by the Kinderkineticist. Clients include individuals or groups and the following areas are addressed:

- Motor milestone achievement
- Fundamental movement skill development

- Sport-specific skill development
- Improvement of physical fitness and achieving optimal body composition
- Leisure and sports-related activities
- Gross motor activities that underlie cognitive and academic achievement
- Gross motor developmental delays
- Perceptual motor skills
- Health promotion
- Special need populations
- Visual functioning
- Sensory motor development

### **Use of the Guidelines**

These guidelines include key concepts and ethical regulations with best practice that should be followed.

## **SECTION 2: ROLES AND RESPONSIBILITIES**

### **KINDERKINETICIST CREDENTIAL**

A Kinderkineticist must have an Honours degree in Human Movement Sciences specialising in Kinderkinetics that was obtained at one of the identified campuses in South Africa, or must be recognised according to prior learning under the Grandfather Clause. In order to use the trademark name “Kinderkinetics”, a Kinderkineticist must also be registered with SAPIK (South African Professional Institute for Kinderkinetics). See *Ethical Guidelines for SAPIK, point 1 and 2*. As of 2017\*, the University of the Free State will no longer offer a three-year bachelor’s degree with an Honours degree, but a four-year Biokinetics degree which will include modules that train these students in the skills that are needed in the Kinderkinetics scope of practice. The NWU also introduced their four-year Biokinetics degree with specialisation in Biokinetics, Sport Science and Kinderkinetics in 2018\*. However, the NWU will continue with their three-year degree and one-year Honours degree as well.

#### **The discipline demands the following academic structure:**

- A three-year BA / BSc degree in a Human Movement Science as major.
- Specialisation (subject to verification) in Kinderkinetics in the fourth year of academics. This Honours Degree combines practical experience with academic training. The practical experience is equivalent to 300 hours in an accredited Kinderkinetic practice.
- Four-year degree with specific practical hours specified in each university’s year book. (See websites: NWU: <http://www.nwu.ac.za/mdot/home> and UFS: <https://www.ufs.ac.za/>)
- Recognition of prior learning.

Registration with SAPIK as an Assistant Kinderkineticist is also possible via the following route:

- A three-year degree in Human Movement Science or a diploma in Kinderkinetics at an accredited training institution (with 60 practical hours and prescribed workshops) allows for registration and execution of limited acts pertaining to the profession of Kinderkinetics (see below for details).

#### **The scope of practice for an Assistant Kinderkineticist:**

An Assistant Kinderkineticist is someone who has completed a three-year diploma at Centurion Academy or a three-year Human Movement Science degree at the NWU or Stellenbosch University

and, additionally, completing the Kinderkinetics Workshop, specialising in motor development which consists of:

- A two-day training workshop,
- Practical preparation hours,
- Assignments and training (POE) under supervision of a Kinderkineticist which have to be completed upon completing the course. The Assistant Kinderkineticist may only perform duties that have been part of their training. These include:
  - Typically developing children (which include optimisation, see p. 12)
  - Typical developing babies. Babies with special needs should be referred to the Kinderkineticist or other relevant professionals
  - Toddler programmes (2–7 years) – minimum 60 hours
  - Sport development (7–9 years)

The programme for children from 2–7 years is presented in group format and focuses on the child’s gross motor skills and perceptual motor development. The programme’s purpose is the optimal development of the young child from a motor point of view.

**Sport development (7–9 years)**

This programme is covered by the various sport codes (netball, cricket, hockey, gymnastics, swimming etc.) that students complete during their diploma/degree. These sport subjects include a large amount of practical hours to be completed by the students and in-school hands-on training.

**Testing procedures:**

Children can be screened with the Kinderkinetics Pre-school screening tool as developed by Prof. AE Pienaar (Motor development, Growth and Motor delays, the assessment and intervention thereof, 2018: AE Pienaar).

Therefore, to sum up, the following routes can be used in order to qualify as a Kinderkineticist or Assistant Kinderkineticist.

Kinderkineticist	<b>University Qualification:</b> North-West University University of the Free State	Four-year Biokinetics degree
	University of Stellenbosch North-West University	Three-year degree, with one-year Honours.

Assistant Kinderkineticist	Centurion Academy Pretoria Klerksdorp Tygerberg Cape Town	Diploma Kinderkinetics Workshop Portfolio of Evidence
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## 1. Types of Kinderkineticists

*See Constitution Point 9.2. Membership categories*

## 2. ROLES AND RESPONSIBILITIES

### 2.1 Kinderkineticist

A Kinderkineticist working in the field must have valid credentials. See *Ethical Guidelines for SAPIK, point 1 and 2.*

#### **Outcomes:**

**After the completion of this Honours degree, the Kinderkineticist should be able to:**

Apply his/her skills in all three fields: optimisation of physical development of children, health promotion and children with special needs. *The complete scope of practice is discussed in Section 3.*

### 2.2 Assistant Kinderkineticist

An Assistant Kinderkineticist working in the field must have valid credentials. See *Ethical Guidelines for SAPIK, point 1 and 2.*

#### **Outcomes:**

**After the completion of this course, the Assistant Kinderkineticist should be able to:**

Evaluate pre-school children and compile movement lessons for children aged 2–6 years.

This workshop covers the first section for becoming an Assistant Kinderkineticist. The two sections following on from this include Basic baby stimulation and Sport development/Wellness, which are described in more detail under the headings 3.1.1 and 3.2.4 in this document.

## **SECTION 3: PROVISION OF KINDERKINETIC SERVICES**

### **IDENTIFICATION**

Clients may be identified/recruited by relevant day-care centres, nursery schools, primary schools and special-need schools. Children can also be identified by other health-care professionals and referred to a Kinderkineticist. These professionals include but are not limited to: neurologists, medical doctors, psychologists, dieticians, educational psychologists, occupational therapists, speech therapists, teachers, parents, social workers, play therapists and physical therapists. Although not professionals, parents can also refer their children.

### **ASSESSMENT**

When presented with a child experiencing gross motor difficulties, the first step includes a formal assessment using the different Kinderkinetics protocols. An assessment for typical children starts with an appropriate Kinderkinetics testing protocol to determine their level of development when entering the programme. These assessments also help to establish the starting point and needs of the children when designing a programme that is appropriate for their developmental needs based on the requirements of the specific development programme that they enrol into. These children are assessed with regular intervals using the same assessments to determine their improvement and to generate a pre- and post-report of their performance and improvement. An assessment of a child with special needs includes gathering relevant medical history by means of a medical history questionnaire, which can shed light on the child's medical background and subsequently provides the Kinderkineticist with information on the possible causes for a lack of development, but which can also support the content when designing a remedial or an adapted programme. The relevant assessment protocol (measuring instruments) will be determined for each child based upon the reason for referral of the particular child.

### **REFERRAL**

When presented with a child who requires remedial intervention or therapy that falls outside the scope of practice of a Kinderkineticist, a referral to an appropriate professional is necessary.

## **KINDERKINETICS PROGRAMMES AND SERVICES**

The Kinderkinetics service delivery programme provides a variety of services, from the typically developing child to adapted programmes for children with special needs. Each programme is supported by a relevant testing protocol. See diagram separately.

Service delivery by a Kinderkineticist is sub-divided into three sections:

1. Optimisation
2. Health Improvement and
3. Remedial/Adapted programmes

Each section will be discussed individually.

## **1. Optimisation**

This section is divided into age groups rather than sections due to the development that takes place in each specific age group:

- 1.1 0–2 years
- 1.2 2–7 years
- 1.3 7–13 years

### **1.1 Programmes (0–2 years):**

#### **1.1.1 Baby programme**

This programme includes early sensory motor stimulation for the optimal development of babies between 0 and 24 months. This programme includes baby stimulation and baby massage.

#### **1.1.2 Baby stimulation**

This programme aids in motor development through baby stimulation classes. Babies are given exercises to promote the development of milestones, including reflexes and visual, auditory, grasping, locomotor and object-control skills.

#### **1.1.3 Baby massage**

Baby massage is part of the stimulation classes and a short massage is provided to calm and relax the baby.

### **Testing procedures:**

*The Peabody developmental motor scales second edition (PDMS-2)* is mainly used for evaluating babies from 0–24 months. The following are assessed: reflexes, locomotor skills, stationary skills, object control, grasping and visual-motor integration abilities. A checklist (chart) from the *PDMS* is also used to continually check these babies' milestone developments.

### **1.2 Programmes (2–7 years):**

#### **1.2.1 Movement and perceptual programmes (Fundamental skills)**

Movement programmes can be presented at a school or a Kinderkinetics centre. These lessons focus on laying the fundamental skills (locomotor, balance and manipulation) foundation in order for children to progress to applying these skills later as sport-specific skills. Perceptual skills development is part of this programme due to their importance for school readiness. Perceptual skills include but are not limited to: spatial awareness, body awareness, balance, temporal awareness and rhythm and timing, to name but a few. For example: spatial orientation, which is the ability to place an object in space, is necessary for reading and writing.

### **1.2.2 Mini-sport (Toddler gymnastics)**

Mini-sport is presented to children in the final phase of the fundamental movement stage. During these programmes, mixed groups of children (boys and girls) are exposed to a variety of sports and their basic skills. Mini-sport is a programme that introduces children to the basics of sport skills, while making sure that their fundamental skills are intact. Children in the 5–6-years' age group can also participate in Toddler gymnastics. Here the fundamentals of gymnastics are presented such as strength and flexibility, together with the basic gymnastics movements such as the forward roll. A GSL certification from the SAGF is required to present this programme.

### **1.2.3 Swimming**

Water safety classes are presented to young children as a foundation, whereafter they can move on to more specific learning of swimming strokes. Kinderkinetic students complete the “Learn-to-Swim” course presented by Swimming South Africa or “Swim Dynamics” in order to present these classes.

### **Testing procedures:**

These children can be screened with the *Kinderkinetics Pre-school screening* tool as well as the *Test for Gross motor development-3 (TGMD-3)*.

## **1.3 Programmes (7–13 years):**

### **1.3.1 Physical fitness and strength programme and sport development (ABC of Athleticism)**

This programme includes coaching at schools of children who would like to pursue further sport development. This is a programme that teaches children between the ages of 7 and 9 years the basic sporting skills for soccer, rugby, hockey and netball, among others. The purpose of this programme is to teach the ABCs of movement (agility, balance, coordination and techniques), but especially to improve and refine the performance of fundamental motor skills. The programme is presented in a

group format. Optimising the development of the 7–9-year-old children includes promotion of sport development, improvement of overall wellbeing and introduction to resistance training. The aforementioned are addressed as follows:

- After fundamental movement skills are attained and mastered, children are introduced to sport-specific development individually or in groups. First, basic techniques of various sports are introduced (including general sports such as hockey, netball, rugby, cricket, soccer, baseball and volleyball), whereafter refinement of these skills occurs.

### **Testing procedures:**

The achievement and/or improvement of the 7–9-year-old child are measured using the *Test of Gross Motor Development-3 (TGMD-3)* and for physical fitness and strength the *Fitnessgram and Activity Gram* can be used.

### **1.3.2 Well-being**

The programme for older children between 10 and 13 years helps them with the maintenance of a healthy and balanced lifestyle, and is presented in group format where the girls and boys participate separately. The purpose of the programme is to provide children with the necessary skills and values to become active adults. This programme also aims to improve the quality of life of individuals through participation in the Go-Girls programme (aerobic classes) and the 4-Boys programme (strength training based on physical fitness principles and the interests of children in their age group). These programmes also address social and psychological interaction between individuals, while leading not only to improved motor skills but also the development of social and psychological skills. Resistance training is also introduced at this age, where muscle strength and endurance are improved by compiling an intervention programme consisting of exercises using own body weight, light weights, resistance rubber bands and medicine balls. These programmes initially focus on correct techniques, with increases in the amount of repetitions or the amount of weight only occurring once the correct technique has been learnt. The basic physical fitness principles are learned during training, with the outcome to design scientifically sound physical fitness programmes for older children that can be used for sport conditioning and sport participation, but also for improving general health at older ages.

### **Testing procedures:**

- To determine the fitness and physical activity level of the child, the *Fitnessgram and Activitygram test batteries* are used to assess the individual's current fitness and activity levels.

- Information from these assessments includes body composition, muscle strength, muscle endurance, flexibility and physical fitness. This provides Kinderkineticists with important information that can be used when compiling an intervention plan or fitness programmes.
- The intervention plan or fitness programme consists of specific fitness or physical activity goals, which are re-evaluated once the intervention period has passed.

## **2 Health Improvement**

This section has two sub-sections:

2.1 Improvement of quality of life

2.2 Health risks

### **2.1 Programme: Improvement of quality of life**

#### **2.1.1 Improvement of quality of life**

*See point 1.3.1 & 1.3.2*

#### **Testing procedures:**

*See point 1.3.1 & 1.3.2*

### **2.2 Programme: Health Risks**

#### **2.2.1 Individualised programmes for children experiencing health risk conditions (0–13 years)**

Health risks such as obesity, asthma, epilepsy, heart conditions, physical inactivity, HIV/AIDS, structural and functional defects and lifestyle-connected (obesity) risks may influence children's motor development directly.

#### **Testing procedure:**

These conditions can be evaluated as follows:

- Screening for factors that may be a risk to the child's health by looking at previous reports, evaluations, doctor's notes and pre-natal, neonatal and post-natal history.
- Determining any risk for participation in physical activity by completing the EXPARA questionnaire.

- After the above precautions and measurements have been performed, results will be taken into consideration when compiling an intervention programme.
- The intervention programme focusses on improving the child's health by optimising either their gross motor or physical fitness development, depending on the individual's age, risks and needs.

### **3. Remedial/Adapted programme**

#### **Children Aged: 0–13 years**

This section has five sub-sections:

- 3.1 Learning-related problems
- 3.2 Obesity/Diabetes = Health improvement intervention
- 3.3 Motor deficits
- 3.4 Disabilities
- 3.5 Posture

#### **3.1 Learning-related problems**

This includes but is not limited to conditions such as ADHD and ADD, perceptual motor problems, school readiness and visual functioning problems (excluding strabismus).

#### **Testing procedures:**

These Kinderkinetics programmes help children to improve their motor skills while taking into consideration the problems or deficits related to the condition by means of individualised programmes. It is important to note that a Kinderkineticist cannot diagnose conditions such as ADHD and ADD. However, there are various screening tools that can be used to screen. These include: the *Taylor Hyperactivity Grading list*, the *Modified Conners' Abbreviated Teacher questionnaire*, the *SWAN rating scale* and *Bester's (2006) Disruptive Behavior Scale*.

Perceptual motor difficulties can be captured directly and indirectly by various measuring instruments. The *Bruininks Oseretsky Test of Motor Proficiency, second edition (BOT-2)* as well as the *Movement Assessment Battery for Children, second edition (MABC-2)* can identify various perceptual motor difficulties. The *QNST (Quick Neurological Screening Test)* can detect various sensory and perceptual problem areas. Perceptual-motor deficits related to school readiness can also be assessed, however specific school readiness testing is not provided as part of Kinderkineticist training, but may be done as an extra course. Visual functioning delays can be assessed by means of

the *Quick Neurological Screening Test*, the *Pyfer*, the *Test of Visual Perception (TVPS-3)* and the *Test of Visual-motor integration (VMI-6)*. Furthermore, the *VMI-6* and the *TVPS-3* can also be used to assess visual-perceptual and visual-motor integration skills. However, serious visual problems such as strabismus must be assessed by an Optometrist or Ophthalmologist.

### **3.2 Obesity / Diabetes**

This health-enhancing programme helps children to overcome obesity-related deficits or problems related to the condition by means of individualised programmes. Aspects such as improvement of body composition, specific motor deficits and the posture of children with these needs are addressed. Sport-related skills can also be enhanced for these children.

#### **Testing procedures:**

Obesity can be assessed with the body composition section of the *Fitnessgram* test battery and by completing the EXPARA questionnaire (Exercise and Physical Activity Readiness Assessment of Children and Young Adolescents). The *Bruininks Oseretsky Test of Motor Proficiency, second edition (BOT-2)* can be used to assess their motor proficiency levels. Physical activity and dietary questionnaires can be used to determine physical activity patterns and dietary behaviour. Referral and monitoring by a medical doctor is usually required, especially when such children have other medical conditions and they have to be declared fit to participate in exercise-driven programmes by a health practitioner. Heart rate monitoring and measurements of blood pressure are needed on a regular basis. Diabetes is a condition that is diagnosed by a medical doctor after which a child will be referred for exercise intervention. Physical activity programmes and sport-specific programmes can be used to improve the physical and health well-being of a child with Diabetes.

### **3.3 Motor deficits**

Motor deficits such as Developmental Coordination Disorder (DCD), dyspraxia and gross motor deficits (spatial orientation, muscle tone, coordination etc.) are some of the most common delays that Kinderkineticists work with. The outcome of Kinderkinetics intervention on this population is directed towards improved gross motor skills, skill acquisition and physical fitness with the indirect improvement of daily living.

#### **Testing procedures:**

Evaluation of gross motor proficiency within this population occurs firstly by using the *Bruininks Oseretsky Test of Motor Proficiency, second edition (BOT-2)*, *Movement Assessment Battery for Children, second edition (MABC-2)*, *Peabody Developmental Motor Scales Test, second edition*

(PDMS-2), *Test of Gross Motor Development-3 (TGMD-3)* and *Fitnessgram*. A complete evaluation has also been compiled from these test batteries. This evaluation enables a Kinderkineticist to receive the best overall information about a child's motor performance.

### **3.4 Disabilities**

Water programmes are implemented for children with conditions such as Down syndrome and cerebral palsy to improve their functionality as well as their motor and fitness needs. Disabilities and disorders that are addressed through motor development programmes include among others children on the Autism Spectrum Disorder, children who attained a traumatic brain injury, cerebrally disabled children, children who had a stroke, and children with Spina Bifida, Muscular Dystrophy, Tourette's syndrome or Down syndrome.

#### **Testing procedures:**

Evaluation of gross motor abilities within this population occurs firstly by:

- Using either the *Bruininks Oseretsky Test of Motor Proficiency, second edition (BOT-2)* or the *Brockport Physical Fitness Test*, depending on the individual characteristics of the child.
- The outcome of Kinderkinetics intervention on this population is directed towards improved gross motor skills, skill acquisition and physical fitness with the indirect improvement of daily living.

### **3.5 Posture**

Postural deviations including scoliosis, lordosis, kyphosis and flat feet are conditions that can receive intervention as provided by Kinderkineticists.

#### **Testing procedure:**

- The *New York Posture Test* is used to assess a child's posture. Alignment of the head, shoulders, spine, hips, ankles, neck, upper back, trunk, abdomen and lower back are evaluated.
- After the assessment, an intervention plan is developed with specific goals in mind. The intervention plan focusses on strengthening weak and elongated muscles, while stretching short and rigid or tense muscles.
- In the case of serious deviations, a referral or inter-professional co-operation with a Biokineticist is needed.

## **SECTION 4: KINDERKINETICS AND SIMILAR OCCUPATIONS**

Kinderkinetics and the below-mentioned national and international occupations render services that are related to one another but serve different functions.

*A Kinderkineticist uses various types of programmes and techniques that can be combined to address the following aspects of typically developing children:*

- Gross motor skills
- Perceptual motor skills
- Physical and Motor fitness
- Sport skills
- Water safety
- Visual stimulation
- Learning-related problems
- Obesity/Diabetes
- Disabilities
- Posture

### **4.1 Paediatric occupational therapists**

*Paediatric occupational therapists help children who are recovering from a variety of injuries, disabilities and illnesses to re-adjust to their daily tasks and routines.*

- They may design and implement therapy services that help children participate in school, evaluate the abilities of disabled children and assist children to use special equipment or devices.
- These services may be provided on an outpatient basis, in the child's home or in a clinic.

### **4.2 Physical Therapist**

*A Physical Therapist uses techniques to correct or adjust an individual's functional performance in the following and other areas:*

- Postural disturbances
- Sensorimotor coordination
- Motor planning and bilateral coordination
- Activities of daily living
- Assistive devices

### **4.3 Adaptive Physical Education**

*Adaptive Physical Education (APE) is an adapted, or modified, physical education programme designed to meet the individualised gross motor needs, or other disability-related challenges of an identified student. The APE uses worksheets to address the child's individual needs.*

### **4.4 Special educational needs**

*A special educational needs (SEN) teacher is specifically employed to work with children and young people who need extra support, or require an advanced programme of learning in order to reach their full educational potential. SEN teachers may work with individuals who have:*

- physical disabilities,
- sensory impairments (i.e. hearing or visual),
- speech and language difficulties,
- learning difficulties such as dyslexia,
- conditions such as autism, or social, emotional and mental health needs,
- or have a combination of these difficulties.
- A SEN teacher may also work with gifted and talented individuals.

### **4.5 Motor Remedial Teacher**

*A Motor Remedial Teacher uses a multifaceted approach, tailoring remedial intervention plans to a child's specific needs. It makes use of:*

- one-on-one instruction,
- small group instruction,
- written work,
- verbal work and
- computer-based work.
- Remedial Therapy focuses on skills rather than on content.
- Functional skills – daily routine
- Gross and Fine motor skills – sensory
- Language / Vocabulary development
- Social and behaviour skills
- Academics and functional academics

#### **4.6 Paediatric physical therapists**

*Paediatric physical therapists are physical therapists who specialise in treating and caring for patients who are toddlers, babies, children, teenagers and young adults. They treat conditions related to genetic, neurological and orthopaedic disorders through techniques such as:*

- Functional training and exercise are used alongside medication and diet changes.
- Additionally, paediatric physical therapists use specialised medical equipment that is designed to help treat and alleviate pain from conditions that hinder mobility.

#### **4.7 Kinderfysiotherapeute**

*Kinderfysiotherapeute – Netherlands (Paediatric Physiotherapy). Specialised in the treatment of children up to 18 years with a backlog in their movement development. This includes children struggling with their movements but also social and emotional problems. Thus, the Kinderfysiotherapeut works with children in order to help them:*

- Function better in order to play with other kids and to experience success in sport.
- Focus on their growth and development.
- The treatment involves movement therapy to improve their motor abilities in addition to development.
- Parents also play a role and need to practice new skills at home because children require experience in order to learn the skills.